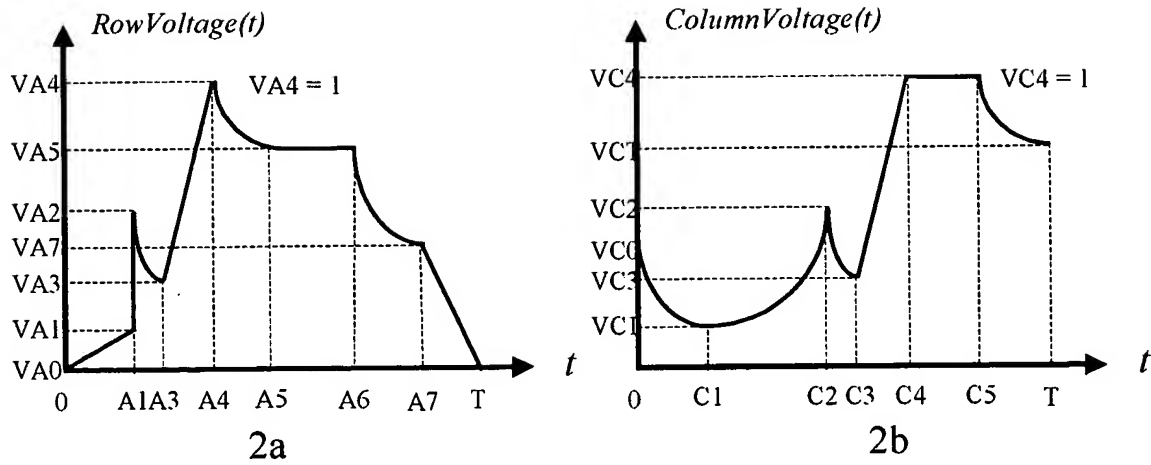


$$VoltageColumn(t) = \begin{cases} t/t_0 & \text{if } t \leq t_0 \\ t_0/t & \text{if } t_0 < t \leq \tau \end{cases} \quad \tau = 10^{-6} \text{ sec}, \quad t_0 = 0.25 \cdot \tau, \quad u_j = (2\pi f_0 / c) \cdot d \cdot \sin \theta_j$$

τ is the pulse duration, $f_0 = 3 \text{ GHz}$, and d is 50 mm.

Fig. 1



$$\sin(\theta(t)) \cong t \sqrt{(\text{RowVoltage}(t))^2 + (\text{ColumnVoltage}(t))^2}$$

$$\tan(\phi(t)) = \frac{\text{ColumnVoltage}(t)}{\text{RowVoltage}(t)}$$

Fig. 2





$$RowVoltage = \frac{\sin(\theta(t)) * \cos(\phi(t))}{t}$$

$$ColumnVoltage(t) = \frac{\sin(\theta(t)) * \sin(\phi(t))}{t}$$

Fig. 3

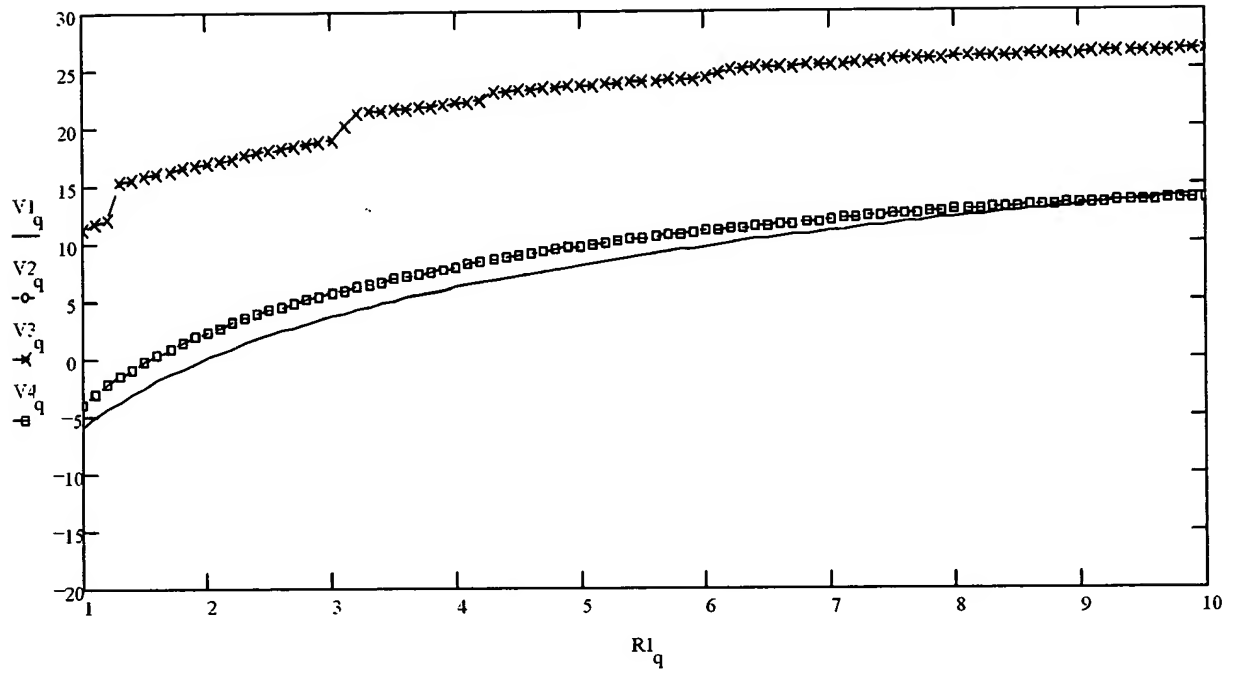


Fig. 4

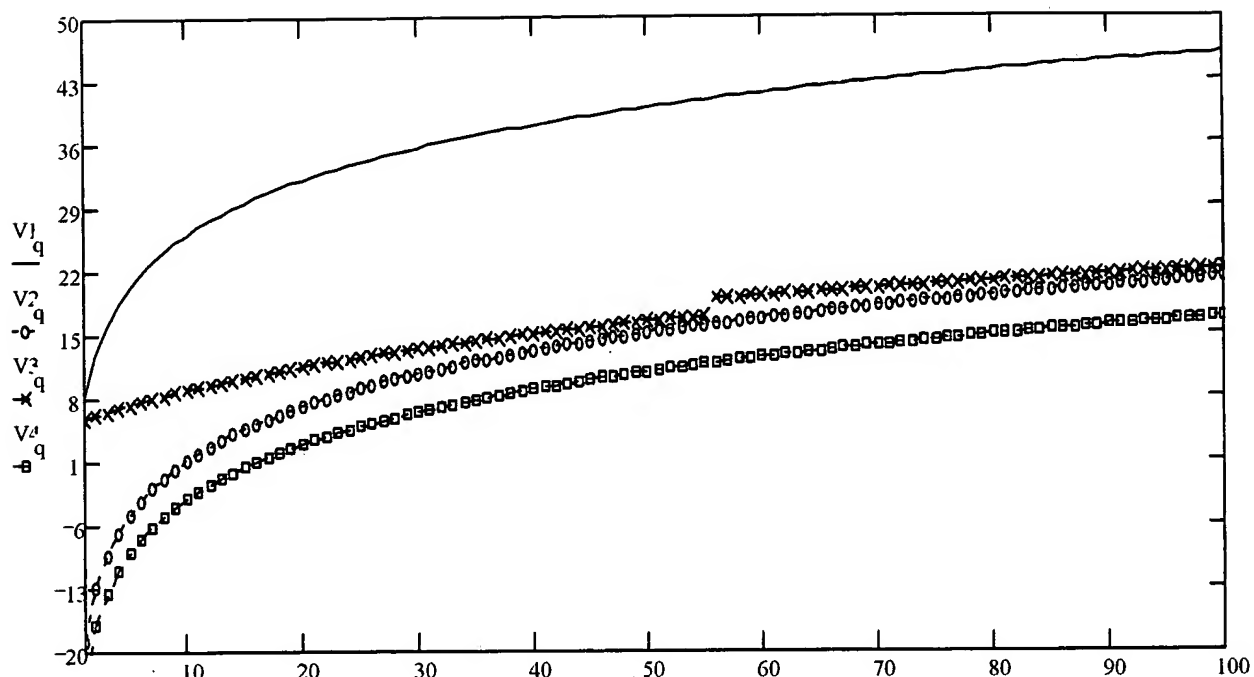


Fig. 5



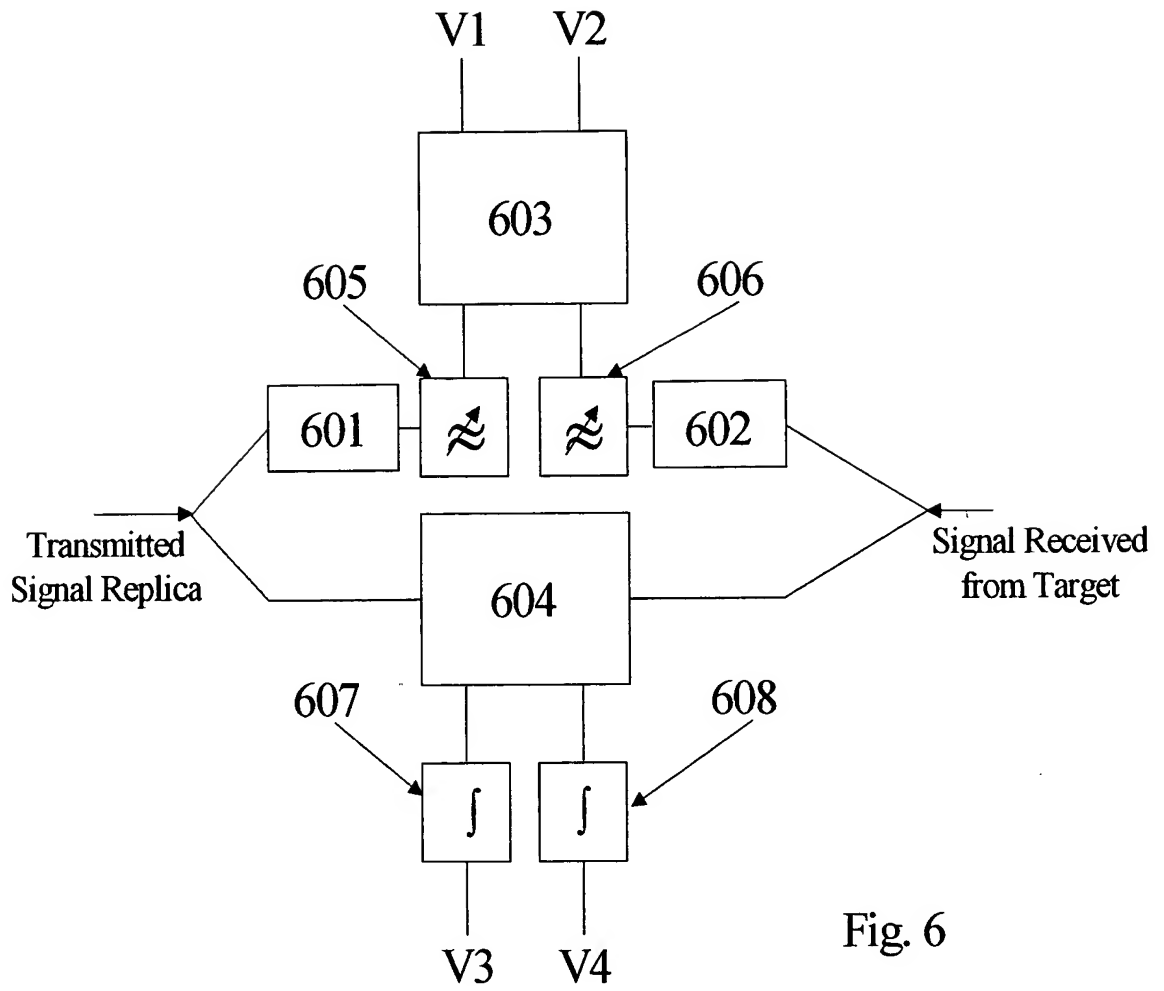


Fig. 6

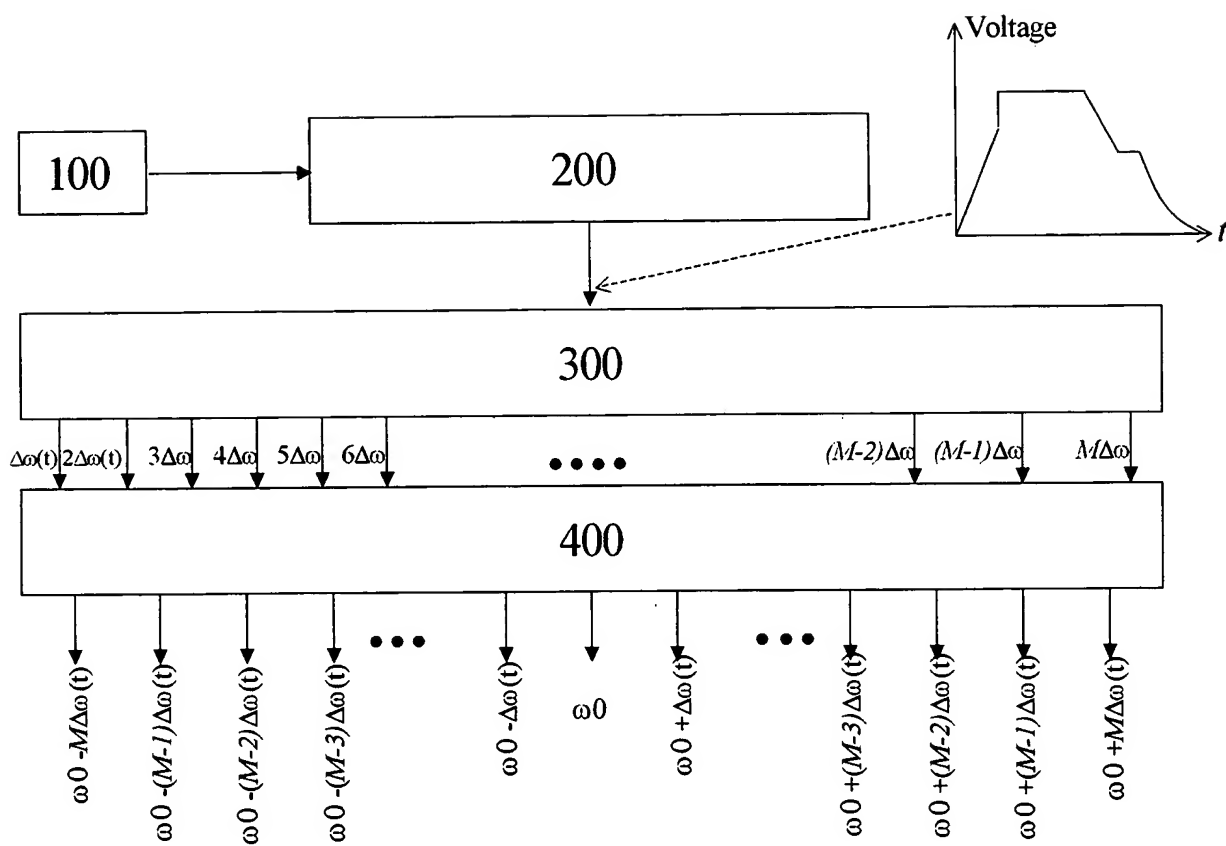


Fig. 7

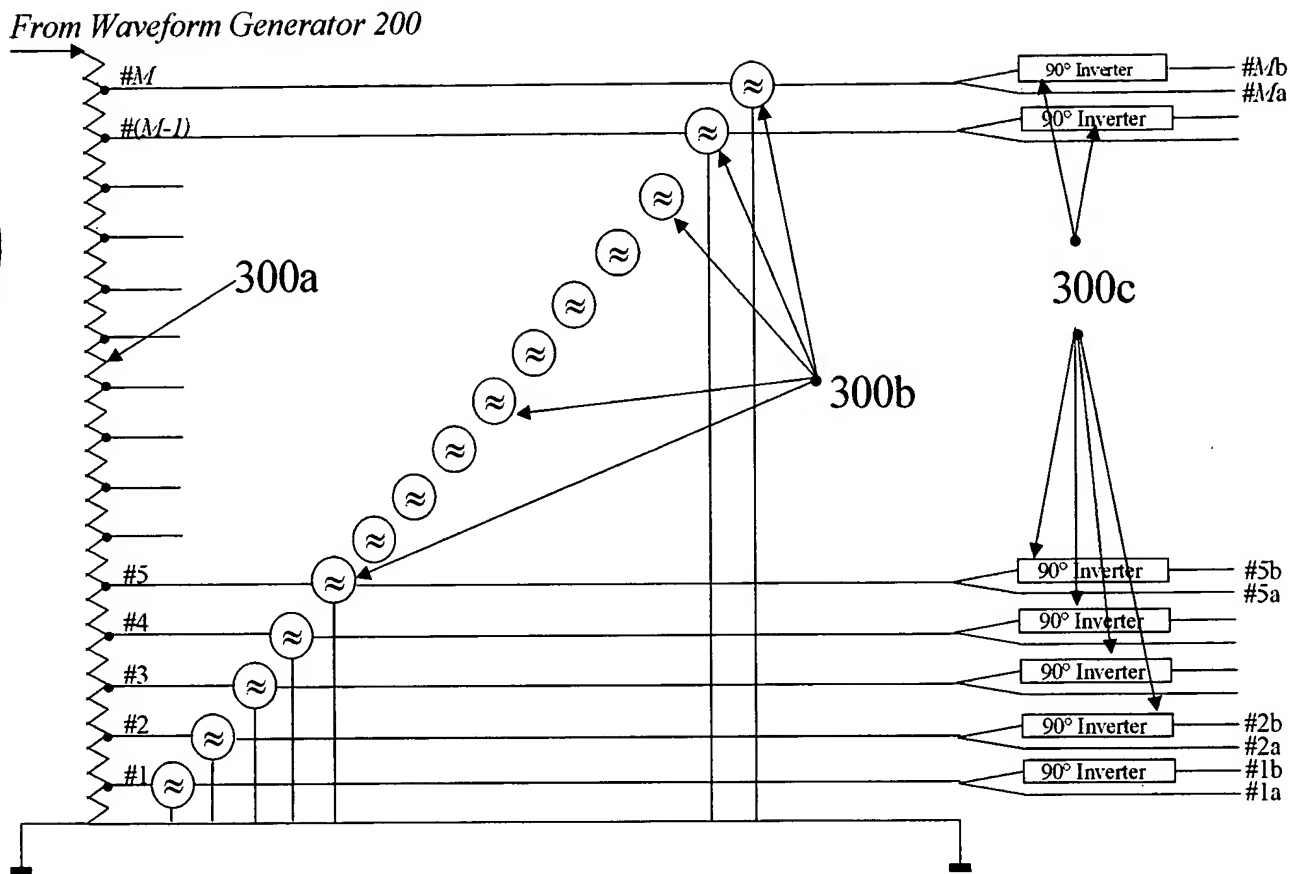


Fig. 8

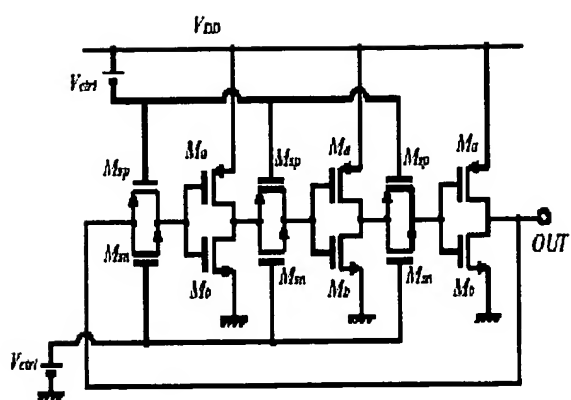


Fig. 9a

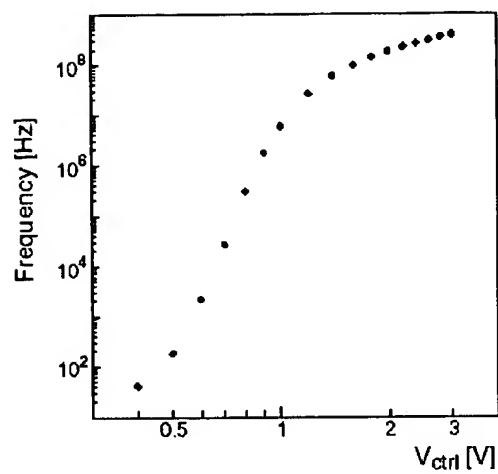


Fig. 9b

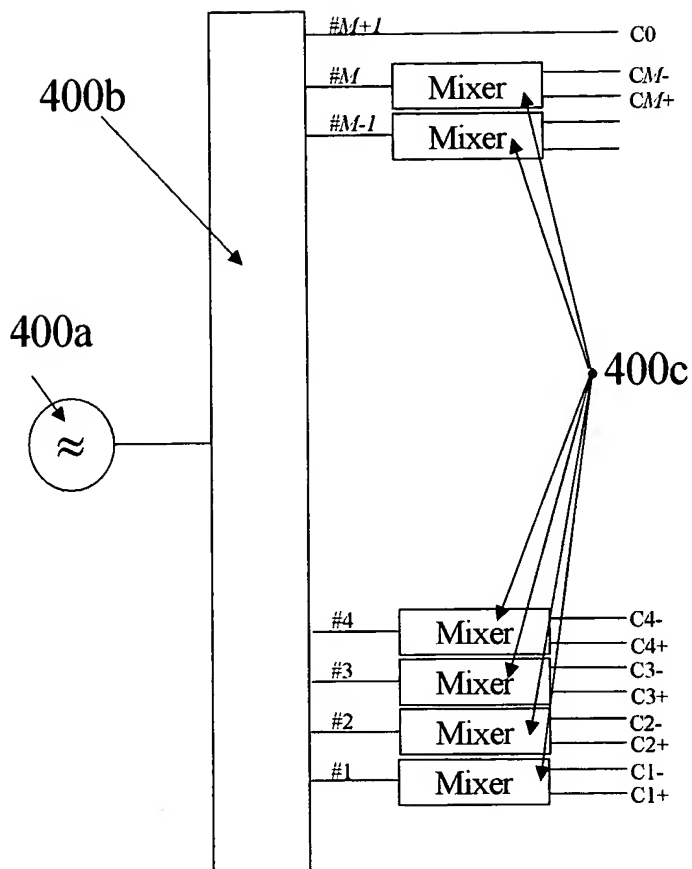


Fig.10

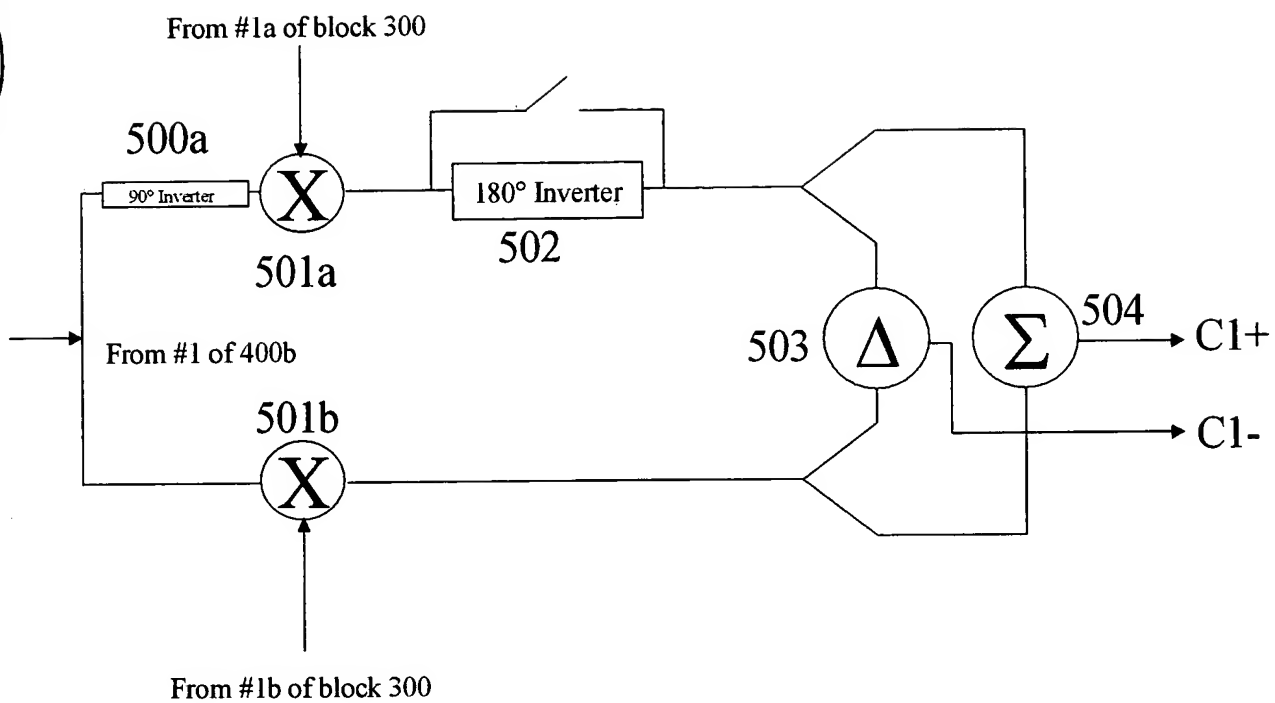
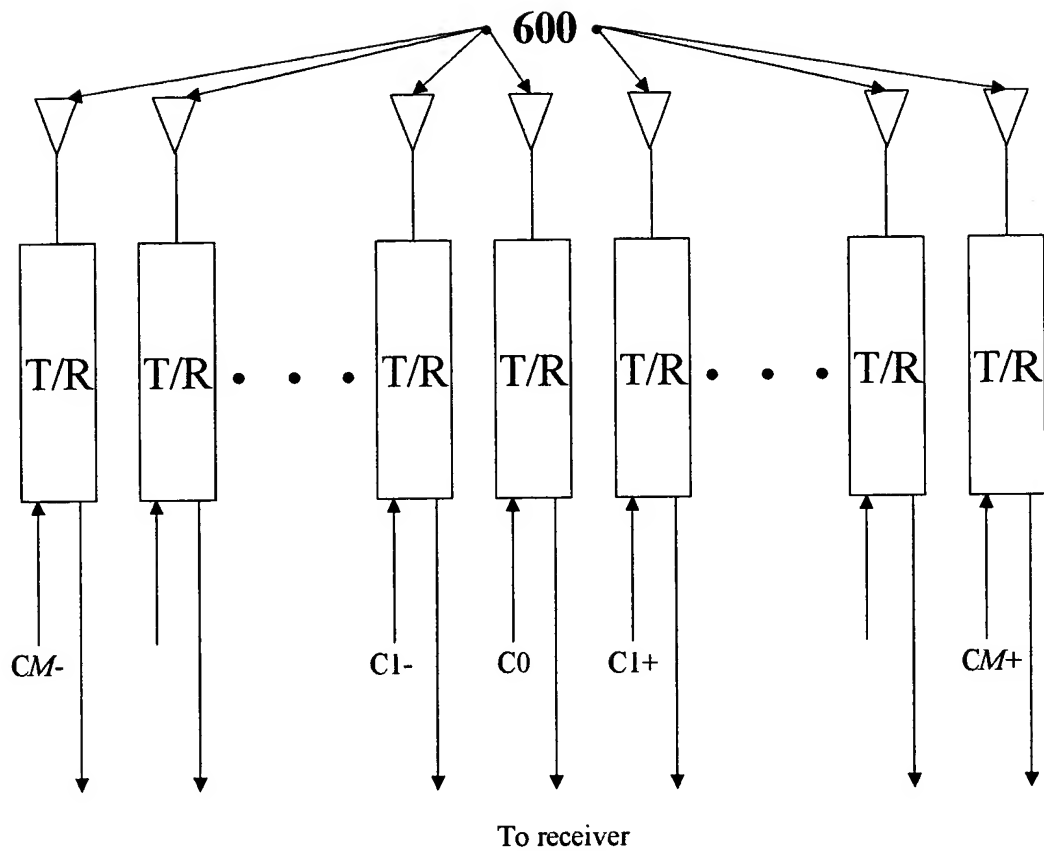


Fig. 11



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